Appl. No. 10/789,735   <u>PATENT</u>
Amdt. dated June 14, 2005
Reply to Office Action of March 22, 2005

<center><u>REMARKS/ARGUMENTS</u></center>

Upon entry of the amendment, which amends claims 10, 22-24, and 28, claims 1-28 will be pending. In the Office Action, claims 1-9, 11-21 and 28 were rejected. Claims 10 and 22-27 are objected to but stated to set forth patentable subject matter.

As amended, all the pending claims of the subject application comply with all requirements of 35 U.S.C. Accordingly, Applicant requests examination and allowance of all pending claims.

Rejections Under 35 U.S.C. § 103(a)

<u>Claim 1</u>

Claim 1 stands rejected as being unpatentable over Larson et al. (US Patent No. 5,793,386 hereinafter "Larson") in view of Wichman et al. (US 2004/0227763 hereinafter "Wichman"). Applicants submit that even if you combine the teachings of Larson and Wichman, the result would not produce all the limitations of claim 1. For example, neither Larson or Wichman disclose <u>storing a texture argument in a general purpose register file and issuing a texture command to a texture request buffer;</u> wherein the texture command is associated with the texture argument.

Larson discloses a method and apparatus for minimizing the number of parameters that must be stored and processed for a particular graphic operation. In Larson, a display list and a set of instructions are loaded in a transaction queue of a graphics processing unit. *See Larson*, col. 5, lines 25-29. Examiner equates the display list to the texture argument, the set of instructions to the texture command, and the transaction queue to the texture request buffer. By storing both the display list and instructions in the transaction queue, a considerable amount of circuit area in the graphics processing unit is consumed.

In contrast, the present invention stores the texture arguments and texture command in different locations. The texture command is stored in the texture request buffer while the texture argument is stored in the general purpose register. By storing only the texture command, which can be considerably smaller in size than the texture argument, the texture

request buffer is capable of occupying significantly less space than the transaction queue in Larson. This also allows the texture queuing mechanism to scale efficiently, especially when used with multiple execution threads.

Further, Larson does not disclose or suggest retrieving the texture command from the texture request buffer and retrieving the texture argument from the general purpose register. In Larson, the display list and the display list instructions are retrieved from the transaction queue and then transferred to the register file for subsequent rendering by the polygon and texture engines. *See Larson*, col. 5, lines 44-47. Claim 1 recites a method of retrieving the texture argument from the register file, while also retrieving the texture command from a separate texture request buffer. Larson does not disclose a method for storing or retrieving texture rendering commands and arguments from different locations. Wichman does not cure the deficiencies of Larson, and therefore claim 1 is patentable over both cited references.

Accordingly, Applicants respectfully request withdrawal of the rejection of claim 1. Claims 2-9, 11, and 12 depend from claim 1 and thus derive patentability at least therefrom. As such, these claims also recite novel and nonobvious features.

Claim 13

Applicants submit that the cited references do not disclose or suggest every element of claim 13. Neither Larson or Wichman disclose or suggest an execution unit which is adapted to issue a texture command to the texture request buffer and to store a texture argument in the register file. Per the argument above, Larson teaches a method of storing both the display list and the display list instructions within a single location, the transaction queue. Again, Wichman does not make up for the deficiencies of Larson.

Accordingly, Applicants respectfully request withdrawal of the rejection of claim 13. Claims 14-21 depend from claim 13 and thus derive patentability at least therefrom. These claims also recite novel and nonobvious features.

Claims Indicated as Allowable - Claims 10, 22-27

Applicants earnestly thank the Examiner for indicating the allowability of claims 10, and 22-27 if amended to include the limitations of the independent claims from which they

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depend. Claim 10 has been amended to include the limitations of claim 1, and is therefore now allowable. Claims 22, 24, and 28 have been amended to include the limitations of claim 13, and are therefore now allowable. Claim 23 has been amended to include the limitation of claim 13 and claim 15, and is therefore now allowable. Claim 25 depends from claim 24 and includes all of the limitations of claim 24, and is therefore also believed to be allowable for at least the reasons stated above for claim 24. Claims 26 and 27 depend from claim 25 and is believed to be allowable for at least the reasons stated above for claim 25. As such, claims 10, and 22-27 are believed to be in condition for allowance.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,
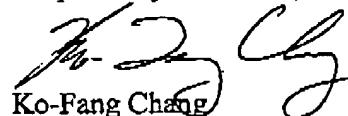
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